

ENVIRONMENTAL ASSESSMENT
FOR THE PROPOSED
POCOSIN LAKES
NATIONAL WILDLIFE REFUGE

A WILDLIFE HABITAT PRESERVATION PROPOSAL

IN

TYRRELL, HYDE AND WASHINGTON COUNTIES

NORTH CAROLINA

PREPARED BY
U.S. FISH AND WILDLIFE SERVICE
ATLANTA, GEORGIA
MAY 1990

FINDING OF NO SIGNIFICANT IMPACT

for the

Preservation of

Approximately 93,000 ± Acres of Wildlife Habitat

in Tyrrell, Hyde, and Washington Counties, North Carolina

for the Establishment

of

Pocosin Lakes National Wildlife Refuge

Based on a review and evaluation of the information contained in the supporting reference below, I have determined that the proposed preservation of approximately 93,000 ± acres of wildlife habitat found in Tyrrell, Hyde, and Washington Counties, North Carolina, will not have a significant effect on the quality of the human environment within the meaning of Section 102(2) (c) of the National Environmental Policy Act of 1969. Accordingly, the preparation of an environmental impact statement of the proposed action is not required.

Supporting Reference

An environmental assessment has been prepared that summarizes various alternatives and subsequent environmental impacts for this wildlife habitat preservation proposal. The assessment is on file in the Division of Refuges and Wildlife and is available for public inspection upon request.

May 16, 1990

Date


Regional Director

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I. PURPOSE AND NEED FOR ACTION

A. Introduction

The Fish and Wildlife Service (Service) is proposing to add 93,000± acres of lands and waters to the National Wildlife Refuge System. These lands would come to the Service through donation by The Conservation Fund, a non-profit organization, in coordination with the Richard King Mellon Foundation. This addition to the refuge system is being proposed:

1. to protect and restore wetlands which will contribute to the Presidential Initiative of "No Net Loss of Wetlands;"
2. to protect the watershed of nearby lakes, rivers and estuaries which support recreational and commercial fisheries and which provide wintering habitat for Canada geese, snow geese, tundra swans, and a variety of ducks;
3. to protect and enhance production habitat for wood ducks;
4. to protect and enhance habitat for wintering waterfowl;
5. to protect and enhance habitat for migratory songbirds;
6. to protect and enhance habitat for those species which are classified as endangered, threatened, or of special concern;
7. to provide opportunities for wildlife-oriented interpretation and outdoor recreation;
8. to provide opportunities for environmental education.

The authority for the acquisition and establishment of the refuge is the Fish and Wildlife Act of 1956.

B. Background

The proposal area lies between the Albemarle and Pamlico Sounds in northeastern North Carolina. Its acreage is roughly divided among three counties as follows:

Tyrrell	- 49,841
Hyde	- 27,890
Washington	- <u>15,424</u>
Total	93,155

With the exception of three of the smaller tracts, the property is accessible by various gravel and paved State roads and unimproved private roads. Access rights on these private roads, as well as a share of the maintenance responsibilities, would be transferred to the Service along with the proposal area.

The Conservation Fund is the sole landowner within the proposal area. It intends to donate 93,000 ± acres to the Service. It also intends to donate to the State approximately 700 acres of land on the northwestern shore of Lake Phelps for addition to Pettigrew State Park. This narrow tract includes 4.1 miles of lakeshore. Since the Conservation Fund intends to convey this land to the State Park, it will not be considered part of the proposal area in this environmental assessment. The Conservation Fund also intends to donate to the Service 11,545 acres in Dare County. Since this acreage lies within the approved acquisition boundary of Alligator River National Wildlife Refuge, it will not be considered part of the proposal area in this environmental assessment.

The Conservation Fund and the Richard King Mellon Foundation have not yet decided if the rights to the peat on the proposal area will be donated to the Service.

C. Scoping

Beginning in the later part of 1989 Service personnel have had numerous contacts with local officials and representatives of various Federal and State agencies concerning this proposal. Meetings were held during 1989 and 1990 with representatives of The Conservation Fund, The Nature Conservancy, and Ducks Unlimited. Articles on the proposal were published in the following North Carolina newspapers: Washington Daily News (Feb. 27, 1990), Raleigh News and Observer (Mar. 1, 1990), East Carolina Reminder (Mar. 7, 1990), Roanoke Beacon (Mar. 7, 1990).

II. ALTERNATIVES INCLUDING THE PROPOSED ACTION

A. Alternative 1: No Action

This is the "status quo" alternative. Under this alternative, the Service would do nothing from an acquisition standpoint to protect or restore wetlands and associated habitats on the proposal area. If this were to happen, The Conservation Fund has indicated that it would convey the land to other entities. Protection of the wildlife habitat and resource values would be left to existing Federal, State, and local regulatory authorities and to the discretion of the future landowners.

B. Alternative 2: Acquisition of the Proposal Area by the Service; Consolidation with Pungo National Wildlife Refuge and Management as an Independent Refuge (Preferred Alternative)

Under this alternative, the Service would acquire the proposal area by donation from The Conservation Fund. The proposal area would then be consolidated with Pungo refuge to form a new national wildlife refuge with a new name and new objectives. This consolidated refuge would be managed by a manager and staff independent of the managers at the Alligator River and Mattamuskeet National Wildlife Refuges.

C. Alternative 3: Acquisition by the Service of 77,000 ± Acres of the Least Altered Part of the Proposal Area; Consolidation with Pungo National Wildlife Refuge and Management as an Independent Refuge.

Under this alternative the Service would acquire 77,000 ± acres of the least altered part of the proposal area by donation from The Conservation Fund. This acreage would then be consolidated with Pungo refuge to form a new national wildlife refuge with a new name and new objectives. This consolidated refuge would be managed by a manager and staff independent of the managers at the Alligator River and Mattamuskeet National Wildlife Refuges. The Conservation Fund has indicated that it would convey to other entities any land not accepted by the Service. Protection of the wildlife habitat and resource values of the 16,000-acre exclusion would be left to existing Federal, State, and local regulatory authorities and to the discretion of the future landowners. The 16,000-acre exclusion would contain most of the land that has been severely altered by drainage and clearing.

D. Alternative 4: Acquisition by the Service of the Proposal Area; Consolidation with Pungo National Wildlife Refuge and Management Under Either Mattamuskeet or Alligator River National Wildlife Refuge

Under this alternative, the Service would acquire the proposal area by donation from The Conservation Fund. The proposal area would then be consolidated with Pungo refuge to form a new national wildlife refuge with a new name and new objectives. This consolidated refuge would be managed by the manager and staff of either Mattamuskeet or Alligator River National Wildlife Refuges. The headquarters of Mattamuskeet is near Swan Quarter in Hyde County, North Carolina. The headquarters of Alligator River is in Manteo in Dare County, North Carolina.

E. Alternative 5: Acquisition and Management by Others

Under this alternative the Service would rely on other agencies and organizations to protect and manage the proposal area. Other agencies with potential acquisition and management interests include the North Carolina Department of Environment, Health, and Natural Resources, the North Carolina Wildlife Resources Commission, the North Carolina Nature Conservancy, and Ducks Unlimited, Inc.

III. AFFECTED ENVIRONMENT

This section discusses the physical, biological, cultural, and socioeconomic environment of the proposal area and the surrounding communities.

A. Physical Environment

1. Climate

The proposal area averages about 53 inches of precipitation per year. During dry years, however, precipitation may be as low as 35 and in wet years as high as 79. Peaks usually occur in July and August, and the lowest rainfall occurs in April and October (Lilly, 1981; Copeland et al., 1983).

The average January temperature is between 43 degrees and 46 degrees Fahrenheit. The temperature seldom falls below 10 degrees Fahrenheit. Summers are characterized by hot humid days with an average daytime temperature above 90 degrees Fahrenheit in July and August (Copeland et al., 1983).

2. Soils

Organic soils, commonly called peat, occur on the great majority of the proposal area. These normally waterlogged soils exceed 4 feet in depth on most of the area. Large acreages have depths in excess of 8 feet. A significant percentage of the soil volume consists of buried roots, stumps, and logs that persisted as the organic soil accumulated (Lilly, 1981). These organic soils will burn when dry, thus increasing the fire hazard during droughts.

First Colony Farms, Inc., the former owner of the proposal area, estimated that there are 33,100,000 dry tons of peat on 66,785 acres of the proposal area. Peat also occurs on most of the

remaining acreage, but its volume is unknown. This peat has low ash and sulphur contents and a high heating value. Its quality is thus high as a commercial fuel for direct combustion (Gale and Adams, 1984).

Below the organic soils on the proposal area are mineral soils. These were deposited as Recent marine sediments and vary from sand to clay. The type of material can change drastically over a short distance, and its character has a strong influence on the physical and chemical properties of the entire soil profile (Ash, McDonald, Kane, Pories, 1983).

Most soils on the proposal area are very acidic. This acidity limits the number of plant species which can grow and thrive there.

3. Water Resources

a. Ground Water

Significant aquifers are located in the various sandy and limestone layers in the geologic profile which underlie the proposal area. The surface recharge of these aquifers is limited on the proposal area by (1) the advanced state of decomposition and relatively high density of the surface peat which make it almost impervious to water movement and (2) a fine textured mineral soil layer beneath the surface peat. According to Paul Lilly (personal communication, 1990) the net downward seepage from the surface peat layer is 0.5 inches per year. According to J.M. McCarthy (1985) less than 0.1 inch per year moves from the surface peat layer into the lower aquifers. This results in high seasonal water table conditions on the proposal area. In some areas where the drainage canals have breached the fine textured mineral soil layer, recharge to underlying aquifers is possible as long as a high water level is maintained in the canals. Conversely, when water levels are kept low, the aquifer below the fine textured mineral soil layer may discharge into the canal system (Pratt, 1985).

b. **Surface Waters**

(1) **PUNGO RIVER**

The Pungo River is located in Hyde and Beaufort Counties and drains into Pamlico Sound. Although the Pungo is not on the proposal area, approximately 22,000 acres of the proposal area drain into it. The drainwater from this acreage enters the Pungo largely through the Boerema Canal and Clark's Mill Creek. Above Clark's Mill Creek, the proposal area accounts for more than 16 percent of the Pungo's watershed (McCarthy, 1985).

Above U.S. Highway 264 the Pungo River is a fresh to brackish system with salinities from 0 to more than 10 parts per thousand. Although classified as an inland fishing water by the North Carolina Wildlife Resources Commission, a saltwater wedge of a few parts per thousand can extend up the river beyond Boerema Canal during extended dry periods. Due to the extensive network of canals and ditches in the Pungo basin and the channelization of the river itself, the river is subject to rapid freshwater flushing following heavy rainfall (McCarthy, 1985).

(2) **LAKE PHELPS**

The proposal area includes 4.5 miles of shoreline along 16,600 acre Lake Phelps, which is located in Washington and Tyrrell Counties. This freshwater lake has a maximum depth of 9 feet, but its average depth is about 5 feet. Only that part of the proposal area between State Road 1183 and the lake shore drain into the lake. This would amount to approximately 1,300 acres. No canals or natural surface streams drain into the Lake. Outflow from Lake Phelps is controlled by canal gates and it is ultimately discharged into the Scuppernon River and Albemarle Sound.

The property map developed by First Colony Farms, Inc., indicates that $1,200 \pm$ acres of the southern part of Lake Phelps may be in the proposal area. The State of North Carolina, however, claims all of Lake Phelps.

(3) NEW LAKE

The proposal area includes $4,020 \pm$ acres of the 4,800-acre New Lake in Hyde County. It would also include approximately half of its shoreline. The outflow of this shallow lake is discharged through a water control structure and canal into that reach of the Intracoastal Waterway between the Pungo and Alligator Rivers.

(4) ALLIGATOR AND SCUPPERNONG RIVERS

The Alligator River is located in Dare, Tyrrell, and Hyde Counties. It drains into Albemarle Sound. The Scuppernong is located in Tyrrell and Washington Counties. It also drains into Albemarle Sound. The Alligator and its tributaries drain most of the western portion of the proposal area. The Scuppernong and its tributaries drain the northeastern fringe of the proposal area and the nine outlying tracts north of the contiguous main tract of the proposal area. Although at times, salinity values at the mouth of the Alligator River approach the brackish range, both rivers are essentially fresh for most of their length (Giese et al. 1979; USFWS, 1986).

(5) CANALS AND DITCHES

Numerous canals were dug through the proposal area as a result of previous agricultural and timbering activities. This system has altered the drainage patterns that prevailed before settlement. The directions of flow in this complex system are not fully understood at this time. On $22,890 \pm$ acres the canal system is supplemented by a system of field and collector ditches. The field ditches are 3-5 feet deep and 330 feet apart. They feed into the collector ditches which are 6-8 feet deep and $\frac{1}{2}$ mile apart. The collector ditches in turn feed into the canals which are 10-15 feet deep (McDonald et al., 1983).

(6) OTHER WETLANDS

The vast majority of the proposal area would be classified as wetlands. The characteristics of these wetlands are described in Section B.1. These wetlands receive a certain amount of protection from the Clean Water Act (33 U.S.C. 1251-1376, Section 404). This Federal statute requires that a permit be issued by the U.S. Army Corps of Engineers for placement of fill in wetlands. Normal silvicultural and normal agricultural activities, including minor drainage, are exempt from provisions of the Section 404 permitting process (Federal Register: 51 (219): 41220-41260; USFWS, 1988). The State's Coastal Area Management Act (CAMA) would offer some protection for the proposal area.

4. Land Use

Three brick houses are on the proposal area along the west shore of Lake Phelps. A total of 9.4 acres are occupied by the houses and grounds. The resident of one of the houses has lifetime occupancy rights. There are also a small airstrip, an equipment yard, and a fire tower on the proposal area. Unimproved or gravel roads were constructed immediately adjacent to most major canals. There is also at least one power line crossing the proposal area.

Approximately 19,790 acres of the proposal area were cleared for agriculture or pasture during the past 40 years. Only a portion of this acreage, however, was actually used for those purposes for a significant length of time. During 1975-78, crops were planted by First Colony Farms on 1,150 acres of the proposal area in Hyde County south of Coulbourn Road. From 1978-85, 600-1,150 acres were farmed by lessees in the same area. From 1985-88, 150 acres were farmed by lessees again in the same area. In 1977, cattle were allowed to graze on 3,959 acres of improved pasture between Coulbourn Road and Lake Phelps. During 1978-81 the improved pasture remained available for grazing, but no cattle were put on the area (Jeff Collier, personal communication, 1990; Barnes and Carter, 1986).

During the period 1978-83, an experimental peat mining project was conducted on 150 acres of the previously cleared land. By 1986 this project had been discontinued.

All of the land that was cleared for agriculture or pasture is now in various stages of regrowth to southeastern shrub bog vegetation. This regrowth, however, was interrupted by severe fires in 1981 and 1985.

In 1989, The Conservation Fund, acquired the property. In July 1989, it leased the proposal area to the Service for one year beginning on August 31, 1989. The Conservation Fund also leased the hunting rights on 42,593 acres of the proposal area to 16 hunting clubs for the 1989-90 hunting season.

Due to the volatility of the natural vegetation, the organic soils, the drained condition of the land south of Lake Phelps, and the limited accessibility, the proposal area is one of the most hazardous areas for destructive wildfires in the eastern United States. The most recent large wildfire occurred in the spring of 1985. It burned 95,000 acres including most of the proposal area. Surface elevations were reduced by as much as three feet in parts of the area due to combustion of the peat (Barnes, 1985). The fire also destroyed 25 houses and other structures on lots adjacent to the proposed area.

On November 14, 1989, the Service conducted a contaminant evaluation and cost analysis on the proposal area. The evaluation determined that (1) no contaminants were obvious in the proposal area (which includes a small solid waste disposal site), and (2) there were no obvious signs of any effects of contamination.

B. Biological Environment

1. Vegetation

The predominant vegetation type of the proposal area is southeastern shrub bog which is also known as pocosin. This type is characterized by a very dense growth of mostly broadleaf evergreen shrubs and scattered pond pine. On the proposal area, it is in various stages of growth ranging from a stage dominated by grass to one dominated by mature pond pine. Most of this habitat has been subjected to drainage of one degree or another. The North Carolina Natural Heritage Program has identified three areas of pocosin in Tyrrell and Hyde Counties as potential natural areas. These are as follows:

- a. Upper Alligator River Pocosin - 29,793 acres ($26,000 \pm$ acres in proposal area)
- b. Harvester Road Tall Pocosin - 7,989 acres ($7,000 \pm$ acres in proposal area)
- c. New Lake Fork Pocosin - 9,300 acres ($7,100 \pm$ acres in proposal area)

With respect to the Upper Alligator River Pocosin, the evaluation concluded that it was "the best of unmodified or only slightly modified pocosins on the Albemarle Pamlico Peninsula" (McDonald and Ash, 1981).

The proposal area also includes 2,175 acres in eight tracts on or near the Scuppernong River or its tributaries. Most of this acreage consists of a bottomland hardwood forest, a few stands of loblolly pine, and at least one Atlantic white cedar stand. The dominant species of the bottomland hardwood forest are blackgum and Carolina ash with smaller components of red maple, water tupelo, loblolly pine, and bald cypress. Most of the acreage in the Scuppernong tracts is in one of the potential natural areas identified by the North Carolina Natural Heritage Program. This 7,569-acre potential natural area was named the Scuppernong River Swamp Forest (McDonald and Ash, 1981).

There are $400 \pm$ acres of marsh along the Alligator River. This is part of a 971-acre marsh dominated by cattail which was identified as an important natural area by the North Carolina Natural Heritage Program (McDonald and Ash, 1981). The natural area was named the Upper Alligator River Marsh. There are also approximately $4,020 \pm$ acres of open water and mud flats on New Lake and a disputed $1,200 \pm$ acres of open water and shore in the southern part of Lake Phelps.

2. Fish and Wildlife

a. Fish

Lake Phelps contains a thriving and diverse fish population. The primary game species are largemouth bass, white perch, bluegill, and chain pickerel. Substantial populations of two desirable nongame species, channel and white catfish, are also found in the lake. An additional nongame species often

collected in significant numbers is the longnose gar. Two anadromous species, alewife and blueback herring, have gained access to the lake probably through intermittent openings of control gates. Other forage species that have been represented in various samples in large numbers are golden shiners, gizzard shad, tidewater silversides, and striped killifish. (North Carolina Dept. of Natural Resources and Community Development, 1980). The Waccamaw killifish is found only in Lake Phelps and North Carolina's Lake Waccamaw.

The Alligator River and its tributaries are used by some migratory fish species as spawning grounds. These include Atlantic croaker, spot, Atlantic menhaden, and the southern and summer flounders. Most of these migratory species are of commercial importance. Alligator River and its tributaries are used heavily by some anadromous fish including striped bass, alewife, and blueback herring. The mouth of Alligator River serves as an important wintering area for sexually immature female striped bass (USFWS, 1986).

The Scuppernong River is approximately 27 miles long and originates in swamps located in northern Tyrrell and Washington Counties. Just below its origin, its flow is augmented by a number of canals that connect the river with Lake Phelps. The Scuppernong supports a commercial and recreational fishery for blueback herring and alewife. Important game fish taken in the river include largemouth bass, sunfish and crappie (North Carolina Department of Natural Resources and Community Development, 1980).

Environmental Science and Engineering, Inc. published a study in 1982 on the aquatic ecology of the Pungo River. The following summarizes the findings:

"Spot and Atlantic menhaden were by far the most abundant of the roughly 42 species of fish taken by all gear types. Bay anchovy, hogchoker, longnose gar, and gizzard shad were some of the other numerically important species collected in the Pungo River. Low numbers of striped bass, alewife, and blueback herring constituted the anadromous fish found during the study. Stations in the canals were

characterized by fish belonging to the sunfish and minnow families. In addition, bowfin, pickerel, and catfish were found in the freshwater samples."

"Species assemblages found at the different stations were primarily controlled by salinity and season of sampling. Commercially valuable migratory species such as spot and Atlantic menhaden utilize the Pungo estuary as a nursery area, with young of the year entering the river in winter and spring" (Quoted in McCarthy, 1985).

b. **Birds**

The breeding bird populations on the proposed refuge are very poorly known. The most common winter birds are the American robin, yellow-rumped warblers, common grackle, and the red-winged blackbird. The robins feed heavily on the fruits of redbay and greenbrier. Yellow-rumped warblers use the low shrub pocosins, vegetated canal banks, and forest edges. They feed on the fruits of bayberry and wax myrtle (USFWS, 1986). Mourning doves, bobwhite quail, American kestrels, red-tailed hawks, and northern harriers are common in the western portion of the proposal area which was subjected to landclearing. Those waterfowl which use Lake Phelps in significant numbers include Canada goose, snow goose, tundra swan, mallard, black duck, green-winged teal, hooded merganser, ruddy duck, pintail, and common merganser (Christmas Bird Counts, Pettigrew State Park, 1987-88, 1988-89, 1989-90).

c. **Other Wildlife**

Pocosin communities are invaluable to the welfare of certain animal species because they often provide the only habitat available. A large pocosin such as the one on the proposal area may be used to some extent by any locally occurring mammal, reptile, or amphibian unless it has specific requirements that are not found in a pocosin. White-tailed deer, bobcat, gray fox, raccoon, and opossum are found throughout the shrub bog community, whereas river otter, mink, and muskrat are restricted to suitable aquatic areas within pocosins (Sharitz and Gibbons, 1982).

A number of animals are characteristic of the larger pocosins. Included in this category would be the spotted turtle and the black bear. A bear population is known to occur on the eastern portions of the proposal area. Bears have also been occasionally observed in the severely modified western area. Two butterflies - a swallowtail (Papilio palamedes) and Hessel's hairstreak (Mitoura hesseli) - are dependent as larvae on red bay and Atlantic white cedar, respectively. Both of these trees are commonly associated with pocosins (Wilbur, 1981; Sharitz and Gibbons, 1982).

There is no general agreement that any species of animals are dependent on pocosins. Some subspecies, however, are found only in particular pocosin areas e.g. the Dismal Swamp southeastern shrew (Cooper et al., 1977; Sharitz and Gibbons, 1982).

3. Endangered and Threatened Species

The Federally-listed and State-listed endangered red-cockaded woodpecker has been reported adjacent to the proposal area near Southwest Fork (Merrill Lynch, personal communication, 1990). The red-cockaded woodpecker is not known to occur within the proposal area, but detailed surveys for the species have not been conducted there.

Bald eagles, a Federally-listed and State-listed endangered species, have been sighted several times near Lake Phelps. However, the species is not known to nest, roost or regularly forage within the proposal area. Additionally, the Federally-listed and State-listed threatened peregrine falcon may occur incidentally within the proposal area.

The American alligator, listed as threatened by the State and Federally-listed as threatened by similarity of appearance, is not known to occur within the proposal area. However, suitable habitat exists for the alligator in the headwaters of the Alligator River on the proposal area, and it is possible that the species may occur there.

The Waccamaw killifish occurs only in Lake Waccamaw and Lake Phelps, North Carolina. This species is a candidate for Federal listing and is proposed by the State for designation as a special

concern species. The killifish inhabits open water over firm sandy bottom frequently along the outer edge of emergent vegetation. Its spawning aggregations appear to be associated with aquatic vegetation (North Carolina Department of Natural Resources and Community Development, 1980). Additionally, sensitive joint/vetch, a candidate for Federal listing, occurs within Hyde County but is not known to occur within the proposal area.

C. Human Environment

1. Archeological and Historical Resources

Beginning about 11,000 years ago, people came to Lake Phelps to take advantage of the available food resources. They camped along the low ridges on the northern and western shores. Thirty dugout canoes have been found in this area along with other artifacts. They indicate that Lake Phelps was used by aboriginal peoples during the Late Paleo-Indian period (9,000 BC - 8000 BC), the Archaic period (8,000 - 1,000 BC), and the Woodland period (1,000 BC - 1650 AD). So far there is no evidence that Lake Phelps was being used by the aboriginal peoples when European settlement began in the sixteenth and seventeenth centuries (Phelps, 1989).

About 1787, Josiah Collins of Edenton, North Carolina, and two partners brought slaves from Africa to dig a canal connecting Lake Phelps with the Scuppernong River. This canal allowed the land north of the lake to be drained and cultivated for rice and corn. This northern end of the canal is adjacent to one of the outlying tracts of the proposal area.

Josiah Collins established what would eventually become one of the largest plantations in North Carolina. He named it Somerset Place. The plantation mansion is preserved in Pettigrew State Park on the northeastern shore of Lake Phelps. His landholdings included part of the proposal area. The history of the Collins family and the African-American community that developed on Somerset Place was extensively documented in a widely publicized book by Dorothy Redford entitled "Somerset Homecoming".

On May 16, 1990, David Brook, the Deputy State Historic Preservation Officer, provided the following statement:

"A review of our files indicates that few archaeological sites have been identified within the proposed refuge boundaries. However, the area has not been systematically surveyed and a variety of historic and prehistoric period sites can be expected. Creation of the proposed refuge would provide additional protection for potentially significant sites...."

"We have conducted a search of our files and are aware of no structures of historical or architectural importance located within the planning area."

State Historic Preservation Officer, Steve Claggett (personal communication, 1990) stated that the most likely locations for any undiscovered prehistoric sites would be along the Scuppernon River, Alligator River, Lake Phelps, and New Lake, but they may occur in other geographical situations as well.

From 1839 to 1843, canals 25 to 35 feet wide were cut by the State to lower both Pungo Lake and New Lake by 5 feet. It was estimated that 70,000 acres were affected by this project. Lateral canals were also cut 12 to 16 feet wide and 1 mile apart (McMullan, 1984; Straw, 1985). The Cahoon family cemetery on the eastern shore of New Lake may date from the agricultural settlement that followed these drainage efforts. The oldest marked grave in the cemetery is dated 1847.

2. Socioeconomic Conditions

The 1980 populations of the three counties in which the proposal area is located are as follows:

Tyrrell	- 3,975
Hyde	- 5,873
Washington	- <u>14,801</u>
TOTAL	24,649

Of the 100 counties in North Carolina, Washington ranked 84th in population in 1980; Hyde was 98th; and Tyrrell was 100th. The populations of the incorporated municipalities within the three counties are Plymouth - 4,571, Roper - 795, Creswell - 426, and Columbia - 758. The nearest metropolitan area with a population above 100,000 is the Norfolk - Virginia Beach - Newport News area, and it is 2½ hours by road from the contiguous main tract of

the proposal area. The metropolitan area had a 1987 estimated population of 1,346,100 people.

Agricultural production is the foundation of Hyde and Tyrrell Counties' economic base. Major crops are corn, soybeans, wheat, and Irish potatoes. Livestock production, mostly hogs, accounts for the rest of the farm income. Commercial fishing and commercial forestry are significant elements of the economies of both counties (Board of Commissioners of Hyde County, 1986; Talbert, Cox, & Assoc., 1986).

Tourism is a significant element of Hyde County's economy but not that of Tyrrell County. Tyrrell County officials hope to change this in the near future by constructing a boardwalk, visitor center, and other attractions along its picturesque and historic waterfront (Board of Commissioners of Hyde County, 1986; Talbert, Cox, & Assoc., 1986; Coastal Initiative Committee, Columbia/Tyrrell County, 1989). The construction of this boardwalk was underway in May 1990.

In 1990 the North Carolina Department of Economic and Community Development rated Tyrrell as the poorest county in the state. Hyde was rated as the fourth poorest. The ratings were based on per capita income and the unemployment rate.

In Washington County, agriculture represents the largest segment of the economy with corn, soybeans, and hogs leading all other products in dollar sales. Manufacture of apparel and wood products comprise the second major component of Washington County's economy. A paper mill is located in Martin County immediately adjacent to the Washington County line and its largest town, Plymouth. Many residents of Washington County work in this paper mill. In recent decades, Washington County's per capita income and unemployment rate have been more favorable than those of Hyde and Tyrrell Counties (Washington County Planning Office and Ivanfield Assoc., 1980).

3. Public Use

Hunting and fishing are popular traditional pursuits in eastern North Carolina. Many local residents use the proposal area and its adjacent waters for these activities. During the 1989-90 hunting season, 42,593 acres of the proposal area were leased to 16 hunting clubs. This was a continuation of a system that was

begun by First Colony Farms, Inc., in 1986. The clubs had approximately 310 paying members. Many of the clubs also had honorary members and all clubs permitted members to invite guests to hunt on the leased areas.

Prior to 1986, hunting permits were sold to individuals. These pre-1986 permits did not give the permittee exclusive rights to certain areas. The lease system which has been used for the past 4 years does give the lessee exclusive rights on certain areas. The leases also required the lessee to maintain the roads during the hunting season.

IV. ENVIRONMENTAL CONSEQUENCES

This section analyzes and discusses the potential environmental impacts of the five management alternatives described in Section II.

A. Alternative 1: No Action

If the Service does not accept the donation of the proposal area, The Conservation Fund has indicated that it would convey the property to alternative owners as soon as possible. Future owners may not have the incentive, the legal mission, or the financial resources to manage and restore the wetlands and wildlife of the proposal area.

Future habitat protection available under existing laws and regulations will be insufficient to prevent significant degradation of the remaining resource values. Federal Executive orders aimed at protection of wetlands and floodplains only apply to Federal agencies. Therefore, if the proposal area were conveyed to a non-Federal entity, these executive orders would have no application.

The primary Federal deterrent against the loss of resource values on the proposal area would be the Corps of Engineers' Section 404 permit program. The State's Coastal Area Management Act would also offer some protection for the proposal area. There is no assurance, however, that the existing provision of these regulatory programs would be permanent. The regulatory programs are subject to changes in the law, changes in definitions, and new interpretations. Such changes, of course, could either increase or decrease the current level of protection of wetlands. In addition, regulatory agencies must determine whether permit issuance would be in the overall public interest. Fish and wildlife conservation is only one of several public-interest factors considered in

permit issuance decisions. If fish and wildlife conservation is outweighed by other factors, permits for alteration of project area wetlands could be issued.

If future owners of the proposal area could obtain the necessary permits, peat mining would be possible under this alternative. In the past, peat mining followed by agricultural and silvicultural development was proposed for thousands of acres in the western part of the proposal area. Those resources and activities which may be potentially impacted by peat mining include agriculture, silviculture, fisheries, wildlife, recreation, surface water, ground water, solid waste disposal, and local economics. State regulations are designed to minimize the harmful impacts of peat mining but some tradeoffs are inevitable (Gale and Adams, 1984).

If commercial peat mining were to occur, the long-term economic impacts would be favorable in many respects. For example, peat mining and any facilities associated with it for the purpose of producing electricity, methanol, or some other derivative may require a significant number of employees. In addition, the construction and ongoing operation of facilities for peat mining and derivative products could make a sizeable input into the local economy.

There also may be costs associated with peat mining. If the water quality and salinity regimes of nearby rivers and estuaries were adversely impacted, there could be losses in employment associated with commercial and recreational fishing. Two other concerns are (1) that the benefits of peat mining will not be distributed to local governments in proportion to the costs incurred, and (2) that the revenues accruing to local governments from peat mining will not be sufficient in the short run to accommodate the increased demand for governmental services. This increased demand for services would be the result of the operation of the new enterprises and the influx of new residents and their families who would move into the area (Gale and Adams, 1984)

The great majority of the tract is unsuited for intensive agriculture or silviculture in its present condition. Nevertheless, if the peat were removed, more agricultural or silvicultural development would probably occur under private ownership than under Service ownership. This assumes that: (1) there would be adequate economic incentives in terms of commodity prices, and (2) the dominant objectives of most private owners would be maximizing profit. An increase in the number of acres used for intensive agriculture or silviculture would have a favorable impact on the local economy.

Under this alternative, fishery resources on and near the proposal area may remain relatively unaltered or decline depending on the changes in land use, hydrology, and water quality. Depending on future changes in ownership or land use under this alternative, hunt club leases may cost more, less, or be terminated in favor of other revenue producing activities. If peat mining occurs and is followed by intensive agricultural development, hunting opportunities for most game animals would be significantly reduced.

Under this alternative, archeological sites would not receive any protection above what they are now receiving. Both known and undiscovered sites may be impacted adversely through future development or as a result of land ownership changes.

B. Alternative 2: Acquisition by the Service of the Proposal Area: Consolidation with Pungo National Wildlife Refuge and Management as an Independent Refuge (Preferred Alternative)

The preferred alternative would allow the consolidation of the 93,000-acre proposal area with the adjacent 12,350-acre Pungo National Wildlife Refuge under the name of Pocosin Lakes National Wildlife Refuge. The 6,000 \pm acres of Alligator River National Wildlife Refuge in Tyrrell County would also be added to the consolidated refuge. The new name would be given to the consolidated refuge because Pungo Lake would not be its most significant feature. It would also not be in a central location in the consolidated refuge. A manager and staff independent of nearby refuges would manage the new refuge.

Under this alternative 1,300 \pm acres of the proposal area between State Road 1183 and the southern and western shores of Lake Phelps would be jointly managed by the North Carolina Division of Parks and Recreation and the U.S. Fish and Wildlife Service. This joint management could be initiated by a cooperative agreement between the two agencies. It could also be initiated by a lease of certain management rights to the Division of Parks and Recreation by the Fish and Wildlife Service. The 500 \pm acre tract of Pettigrew State Park along the southeastern shore of the lake would also be subject to the cooperative agreement or lease. It would thus become part of the proposal area for the purposes of this environmental assessment (see Section IV B for further discussion of the proposed joint management agreement). The joint management agreement or lease would not include any of the privately owned lots along the shore of Lake Phelps. It also would not result in any infringement of the rights of these property owners. The

joint management agreement or lease also would not give the U.S. Fish and Wildlife Service any special rights or authority on Lake Phelps.

The consolidated refuge would be managed for its value as habitat for waterfowl, migratory songbirds, endangered species, and the diversity of wildlife which are normally found in large pocosins. It would also be managed to protect the recreational and commercial fisheries in Lake Phelps and the Pungo, Alligator, and Scuppernong Rivers. Long-term management of the entire proposal area for all of these objectives could not be assured under Alternatives 1 and 5.

The Conservation Fund and the Richard King Mellon Foundation have not yet decided if the peat rights will be conveyed to the Service. The potential impacts of peat mining were discussed under Alternative 1. If the Service were to acquire the property without the peat rights, it is possible that other parties would eventually mine peat on the proposal area. The design of these projects, however, would be more likely to include adequate safeguards for fish and wildlife if the Service were to own the surface rights of the proposal area.

If The Conservation Fund does convey peat rights to the Service, all reasonable alternatives will be considered for the management of the 19,790 acres of cleared and drained lands south of Lake Phelps. Consideration of all reasonable alternatives is required by the Council of Environmental Quality's regulations on implementing the procedural provisions of the National Environmental Policy Act. One potential alternative would be restoration of the land to pocosin habitat. Another potential alternative would be the development of seasonally flooded shallow marshes as feeding areas for waterfowl and wading birds. Different methods of developing these marshes would be considered, such as (1) impounding water on the existing land surface and (2) impounding water after surface deposits of peat have been removed. The latter method would expose mineral soil which is more productive of waterfowl food plants. Before any further consideration is given to any alternatives which would involve intensive management for waterfowl and wading birds or restoration of the land to pocosin habitat, the Service would consult with the North Carolina Wildlife Resources Commission; County government officials in each of the three counties; the North Carolina Department of Environment, Health, and Natural Resources; the Environmental Protection Agency; the Army Corps of Engineers; and environmental organizations. The purpose of these

consultations would be to determine if applicable laws, regulations, policies, and environmental concerns would restrict or preclude intensive management for waterfowl and wading birds, or restoration to pocosin habitat.

The Service is also very sensitive to potential safety problems posed by increased numbers of birds near the training routes of military aircraft. Before any further consideration is given to an alternative which would involve intensive management for waterfowl and wading birds, the Service would consult with the Air Force and Navy. The purpose of these consultations would be to determine if safety considerations would restrict or preclude intensive management for waterfowl and wading birds. If the above consultations indicate that either (a) restoration to pocosin habitat or (b) the development of seasonally flooded marshes for waterfowl and wading birds may be feasible and appropriate, any further consideration would be subject to analysis under the procedures of the National Environmental Policy Act with full public review and comment.

Regardless of who will own the peat rights on the proposal area, large scale agricultural, silvicultural, and residential development is not feasible on most of the existing surface due to unfavorable soil conditions and constraints imposed by applicable laws and regulations. Therefore, the use of this existing surface as a national wildlife refuge represents the highest and best use of the land.

This alternative would provide substantially more protection for archeological sites than if the land were in private hands. Known sites as well as those sites not yet discovered would be afforded the protection provided by the National Historic Preservation Act of 1966, as amended, and the Advisory Council on Historic Preservation's regulations 36 CFR 800.

The Service anticipates that managed public hunting for deer, squirrel, raccoon, opossum, and other species would be compatible uses. Those clubs which leased hunting rights during the 1989-90 hunting season would lose the opportunity to purchase these rights after the 1990-91 season. They would not, however, lose the privilege of hunting on the proposal area in the future. Increased wildlife observation opportunities would also become available.

Under this alternative, a favorable impact on the local economy would result from the following potential features or activities on the proposed refuge:

1. an anticipated 15-20 full-time or part-time refuge employees;
2. the possibility of a visitor center which would attract tourists to the area or induce them to stay a little longer;
3. an outdoor recreational program which could include hunting, nature trails, canoe trails, and volunteer-guided interpretive tours which would attract visitors to the area;
4. an environmental education program which could supplement and improve the science program of local school systems, making the area more attractive to relocating industries.

The current owner of the proposal area, The Conservation Fund, is not required to pay property taxes because it is a nonprofit organization. Nevertheless, it has not applied for an exemption, and it paid the required taxes for 1989. The Refuge Revenue Sharing Act, however, provides that the Fish and Wildlife Service make payments annually to the counties in lieu of taxes. Monies in this fund come from net income from the sale of products (timber, oil, gas, grazing leases, etc.) and privileges (concessions, rights of way, etc.) generated on refuges and from money appropriated by Congress. Full entitlement is 3/4 of 1 percent of the fair market value as determined by appraisal (including timber value), or 75¢ per acre or 25 percent of refuge receipts, whichever is greater. Appraisals consider sales of similar property in the general neighborhood of the refuge. Professional appraisal guidelines and standards that have been developed and accepted by the appraisal industry are used to update project values every 5 years.

For the last few years, there has not been enough money in the refuge revenue sharing fund to pay the counties full entitlement. A provision in the Act provides that appropriated funds can be authorized to make up the difference in the event of a "shortfall". Full entitlement has been provided to counties in only 6 of the past 19 years. In 1989, 78 percent of full entitlement was given to the counties.

The consolidation of Pungo refuge and the proposal area is also a feature of this alternative. The consolidation will reduce paperwork and eliminate the need for duplicate staff and equipment. Factors which weigh in favor of consolidation of the two refuges are: (a) a 3.4 mile common boundary, (b) similar habitat, and (c) a common fire management program.

A final feature of this alternative is the transfer of 6,000± acres of Alligator River National Wildlife Refuge to the proposed Pocosin Lakes National Wildlife Refuge. This portion of Alligator River refuge is only 4½ miles east of the contiguous main tract of the proposal area. The addition of this acreage to the proposed Pocosin Lakes refuge would put all refuge lands in Tyrrell County under the same manager and staff. The proximity of the main part of Alligator River (in Dare County), and Mattamuskeet refuges to the proposal area has also been considered. Under this alternative, these refuges and the proposed Pocosin Lakes refuge would be managed as distinct and independent stations each with its own manager and staff. The following factors weigh in favor of independent refuges:

- (1) the size of each area,
- (2) the geographic spread of each refuge including the Pea Island satellite refuge of Alligator River and the Swan Quarter and Cedar Island satellite refuges of Mattamuskeet,
- (3) a distinctly different management program in the case of Mattamuskeet,
- (4) a driving distance of 56 miles on all-weather road from the headquarters of the proposed Pocosin Lakes refuge on the west side of Lake Phelps to the headquarters of Mattamuskeet and 60 miles to the headquarters of Alligator River.

Nevertheless, the proximity of the three refuges is such that special coordination is called for in the areas of facility planning, recreational programs, equipment sharing, fire management, the use of specialized staff, and relations with State and local agencies.

C. Alternative 3: Acquisition by the Service of 77,000± Acres of the Least Altered Part of the Proposal Area; Consolidation with Pungo National Wildlife Refuge and Management as an Independent Refuge

Under this alternative most of the land south and west of Lake Phelps would be retained by The Conservation Fund. The Conservation Fund has indicated that if the Service does not accept the proposal area, it may convey it to other entities. Since the lands south of Lake Phelps contain deep peat reserves, future owners may seek the permits necessary for peat mining. The effects of peat mining on the natural and human environment were discussed under Alternative 1. Some of the

area south of Lake Phelps would be retained to maintain corridors for movement of wildlife between the Pungo Lake area and the relatively unmodified pocosin in the eastern part of the proposed area.

This alternative would also allow the consolidation of 77,000 acres of the proposal area with 12,350 acres of Pungo refuge under the name of Pocasin Lakes National Wildlife Refuge. The 6,000 ± acres of Alligator River in Tyrrell County would also be added to the consolidated refuge. Peat removal would not be planned or anticipated on any part of Pocasin Lakes refuge under this alternative.

The effects of this alternative on the natural environment are essentially the same as those of Alternative 2. One difference is that the size of the consolidated refuge would be reduced by 16,000 ± acres. Another difference would be that in the absence of Service ownership of both surface and mineral rights, any peat mining by private entities on the 16,000-acre exclusion would be less likely to include adequate safeguards for fish and wildlife.

D. Alternative 4: Acquisition by the Service of the Proposal Area; Consolidation with Pungo National Wildlife Refuge and Management Under Either Mattamuskeet or Alligator River National Wildlife Refuge

The environmental consequences of acquisition of the proposal area by the Service were discussed in Section IV B. The factors which weigh in favor of consolidating the proposal area with Pungo refuge were also discussed in that section. The factors which weigh in favor of management of the proposed consolidated refuge under the manager and staff of Alligator River refuge are as follows:

1. The natural environment and management programs of the two refuges would be very similar.
2. It is only 27 air miles between the geographic centers of Alligator River refuge and the proposed consolidated refuge.
3. It is only 4½ air miles from the eastern boundary of the contiguous main tract of the proposal area to the western boundary of the 6,000 acres of Alligator River refuge which are located in Tyrrell County.

4. One manager in charge of both Alligator River refuge and the proposed consolidated refuge would simplify relations between the Service and county governments in Tyrrell and Hyde Counties.

The factors which weigh in favor of managing the consolidated refuge under the manager and staff of Mattamuskeet are as follows:

1. It is only 19 air miles between the geographic centers of Mattamuskeet and the proposed consolidated refuge.
2. It is only 3¼ air miles from the northwestern boundary of Mattamuskeet to the southernmost extension of the proposed consolidated refuge.
3. One manager in charge of both Mattamuskeet and the proposed consolidated refuge would simplify relations between the Service and county governments in Hyde and Washington Counties.

E. Alternative 5: Acquisition and Management by Others

The other agencies and organizations which are potentially interested in acquiring and managing the proposal area include the following:

1. **Federal Agencies**

There are no other Federal agencies which are potentially interested in acquiring and managing the proposal area.

2. **State Agencies**

- a. **North Carolina Department of Environment, Health, and Natural Resources, Division of Parks and Recreation**

The Department's Division of Parks and Recreation manages a system of State Parks and Recreation Areas. Its primary mission is (a) to provide outdoor recreation opportunities to North Carolinians and out-of-state visitors and (b) to preserve North Carolina's unique and valuable archeological, geological, and biological resources.

The Department has expressed an interest in receiving by donation all of the land between State Road 1183 and the shore of Lake Phelps. The Department owns and manages Pettigrew State Park which includes land on the northeastern

side of Lake Phelps, the lake itself, and a 500+ acre tract of relatively unaltered pocosin along the southeastern shore of the lake. It has done an exemplary job of protecting the lake and its resources and it has a legitimate interest in the future of the south shore of the lake. In recognition of this interest, the Service proposed the concept of a joint management agreement to the Division of Parks and Recreation. This proposition was accepted by Philip M'Knelly, Ph.D, the Director of the Division of Parks and Recreation. It has been incorporated into the preferred alternative in accordance with his recommendation.

John Holpe, the Washington County Manager, sent a letter to The Conservation Fund on January 9, 1990. In this letter he stated that the Washington County Commissioners "are of the opinion that ownership of a portion of the southern shoreline of Lake Phelps by Pettigrew State Park would be most beneficial to the citizens of Washington County".

b. North Carolina Wildlife Resources Commission

This agency manages a system of lands which provide a wide range of recreational opportunities associated with fish and wildlife. The Commission has done an excellent job of managing these lands. Charles R. Fullwood, the Executive Director of the North Carolina Wildlife Resources Commission, sent a letter to Atlanta Regional Director James Pulliam on September 22, 1989, which stated: "We are relieved that acquisition appears to be headed toward The Conservation Fund. If the Service is, in fact, selected to coordinate activities on the property, we would ask that you consider a cooperative approach for management purposes with the Wildlife Resources Commission".

3. Conservation Organizations

a. The Nature Conservancy

This private nonprofit corporation is dedicated to the preservation of natural communities, diversity, and ecosystems for scientific and educational purposes. It currently owns and manages approximately 1,000 nature preserves. The Conservancy often purchases wildlife areas and holds them until appropriated funds become available for

acquisition by government agencies. The areas are then sold to government agencies for management.

Representatives of The Nature Conservancy were asked if their organization would be interested in acquiring any part of the proposal area. They responded that they would be interested in the tracts along the Scuppernong (a) if the Service declined to accept them or (b) if the Service intended to accept them only for the purpose of trading them for lands elsewhere.

Nature Conservancy representatives have also expressed an interest in having the Service manage its 412-acre McMullen tract along the Alligator River. This tract is adjacent to the proposal area in Hyde County.

b. Ducks Unlimited

On January 12, 1990, Ducks Unlimited sent a program prospectus and grant proposal to the Richard King Mellon Foundation. In this document, Ducks Unlimited asked that the Foundation hold back title on 640 acres of uplands located south of Lake Phelps. It would then attempt to develop a revenue-producing enterprise with a peat products company. If it were able to negotiate such an arrangement, it would ask the Foundation to turn title to the block over to the private enterprise.

Ducks Unlimited listed two objectives for this venture: "First, to establish a peat harvesting operation on a small portion of the property to allow a 'real world' demonstration of the environmental effects of the activity as well as the potential for producing waterfowl habitat on areas from which the peat has been extracted. Second, to establish a source of revenue which can be used to support on-going waterfowl habitat programs on the property."

On April 27, 1990, Ducks Unlimited notified the Service that its grant proposal was not accepted. A spokesman for the organization stated that this removed the possibility that Ducks Unlimited would be implementing a habitat management plan on the proposal area.

V. LIST OF PREPARERS

A. Primary Preparer

Thomas W. Barnes - Manager, Pocosin Lakes National Wildlife Refuge (proposed) Creswell, North Carolina

Mr. Barnes has been employed by the Service since 1977. He has served as assistant refuge manager or project manager on a total of four refuges in Florida and Louisiana before being assigned to the proposed Pocosin Lakes National Wildlife Refuge. Prior to 1977, he served as a forester with the Southeastern Forest Experiment Station of the U.S. Forest Service in Asheville, North Carolina, and a teacher in the public school system of Pelham, Georgia.

Education - University of Michigan, B.S. Natural Resource Management, 1974

B. Secondary Preparers

The following individuals assisted with the preparation of this environmental assessment.

Charles Danner -	Chief Project Development Branch, Division of Realty
Cal Garnett -	Fish and Wildlife Biologist, Division of Realty
Bill Grabill -	Associate Manager, Refuges and Wildlife
Paula Green -	Clerk/Typist, Division of Realty
Bernice Kitts -	Clerk/Typist, Mattamuskeet National Wildlife Refuge
Robert Noffsinger -	Wildlife Biologist, Alligator River National Wildlife Refuge
Patricia Podriznik -	Fish and Wildlife Biologist, Division of Realty
John Taylor -	Manager, Alligator River National Wildlife Refuge
Donald Temple -	Manager, Mattamuskeet National Wildlife Refuge

VI. CONSULTATION AND COORDINATION WITH OTHERS

Service personnel have met with or contacted many private individuals, landowners, community leaders, members of civic organizations, businessmen, and representatives of local, State, and Federal agencies. The following is a partial listing of these contacts:

- Ducks Unlimited, Inc.
- Hyde County Manager
- Hyde County Board of Commissioners
- Mayor and Councilmen of Roper, North Carolina
- Mayor and Councilmen of Creswell, North Carolina
- Mayor of Columbia, North Carolina
- North Carolina Chapter of the Sierra Club
- North Carolina Department of Cultural Resources
- North Carolina Department of Environment, Health, and Natural Resources, Division of Parks and Recreation
- North Carolina Department of Environment, Health, and Natural Resources, Division of Environmental Management
- North Carolina Department of Environment, Health, and Natural Resources, Division of Environmental Management, Water Quality Section
- North Carolina Department of Environment, Health, and Natural Resources, Division of Forest Resources
- North Carolina Environmental Defense Fund
- North Carolina Fisheries Association, Inc.
- North Carolina Nature Conservancy
- North Carolina Wildlife Resources Commission, Division of Boating and Inland Fisheries
- North Carolina Wildlife Federation

- North Carolina Wildlife Resources Commission,
Division of Wildlife Management
- Owners of private property along Lake Phelps
- Pettigrew State Park
- Ruritan Club of Creswell
- Rotary Club of Columbia
- Southern Environmental Law Center
- Superintendent of Tyrrell County Public Schools
- The Conservation Fund
- The Pamlico-Tar River Foundation
- Tidewater Research Station
- Tyrrell County Board of Commissioners
- Tyrrell County Manager
- Tyson Carolina, Inc.
- United States Department of the Air Force, Fourth Tactical Fighter
Wing Safety Office
- United States Soil Conservation Service
- Washington County Board of Commissioners
- Washington County Chamber of Commerce
- Washington County Economic Developer Ralph
Plumlee
- Washington County Manager
- Washington County Planner

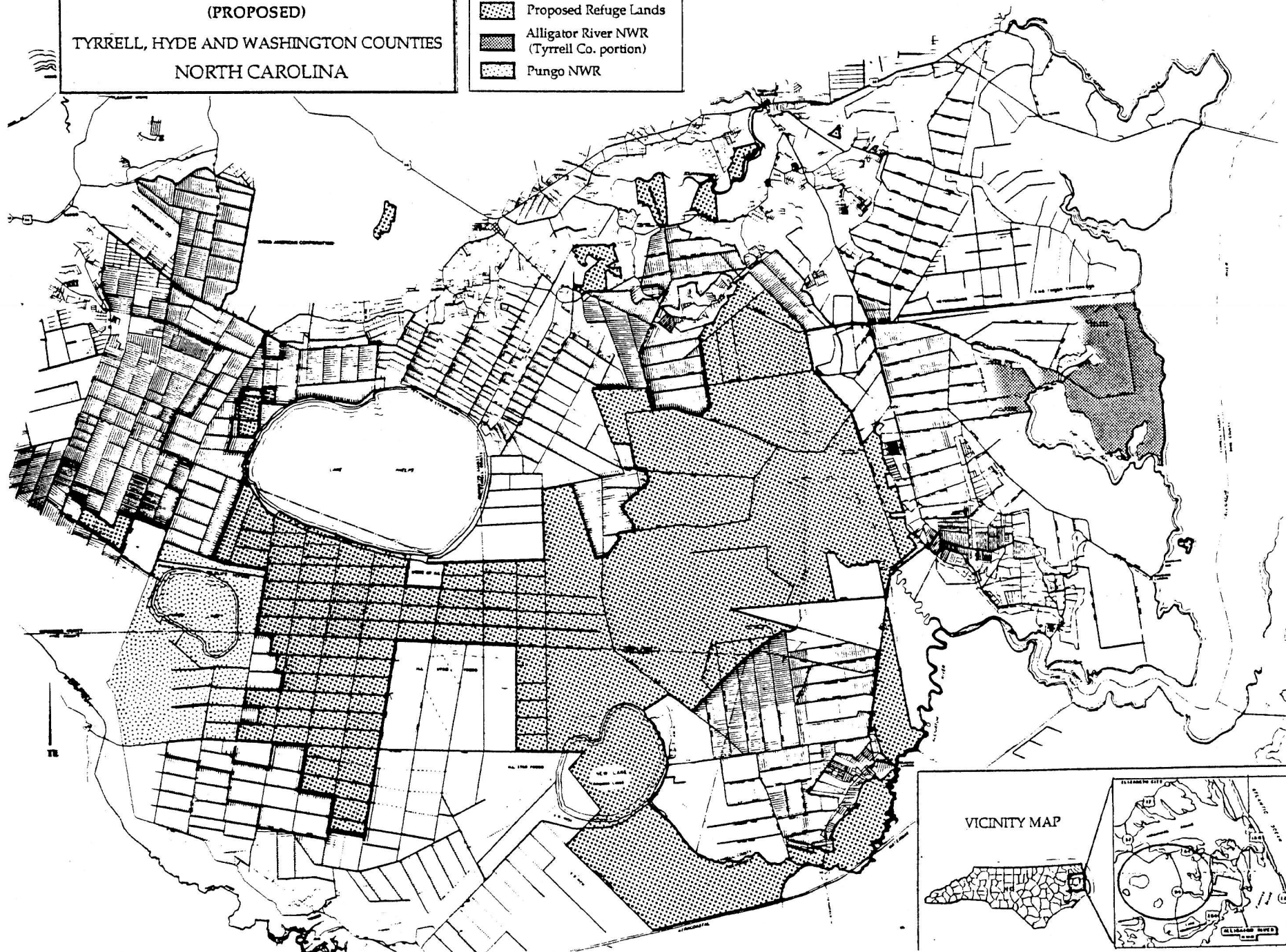
POCOSIN LAKES
NATIONAL WILDLIFE REFUGE
(PROPOSED)

TYRRELL, HYDE AND WASHINGTON COUNTIES
NORTH CAROLINA

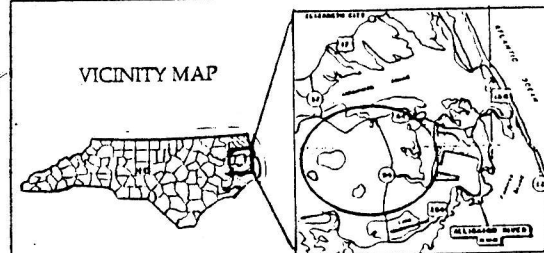
LEGEND

- Proposed Refuge Lands
- Alligator River NWR
(Tyrrell Co. portion)
- Pungo NWR

ALBEMARLE SOUND



VICINITY MAP



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VIII. PUBLIC PARTICIPATION

The Notice of Availability of the Draft Environmental Assessment for the Proposed Pocosin Lakes National Wildlife Refuge was published in the Federal Register on April 9, 1990. It gave a summary of the proposal, invited comments, and stated pertinent dates and persons to contact for copies of the document and other information. A national press release, dated April 12, 1990, announced the Service's proposal to establish the refuge and the availability of the environmental assessment. It stated that requests for copies of the assessment and for further information should be sent to the Service's offices in Atlanta, Georgia, or Creswell, North Carolina. It also stated that comments or recommendations concerning the proposal were welcomed and should be directed to the Service's offices in Atlanta or Creswell by May 11, 1990.

Approximately 285 copies of the draft environmental assessment were distributed to local, State and Federal agencies; community leaders; legislators; concerned individuals; landowners; and environmental organizations. The official public comment period began on April 9, 1990, and ended on May 11, 1990. Additional comments were received after May 11, and were considered in the review and evaluation of the environmental assessment.

The table below summarizes the opinions and information presented in the 111 responses which were received on the draft environmental assessment.

**Summary of Responses to Draft Environmental
Assessment for the Proposed
Pocosin Lakes
National Wildlife Refuge**

WRITTEN RESPONSES: 111 individuals or organizations commented on the draft environmental assessment.

- * 38 respondents favored the establishment of a refuge as proposed, in concept, with qualifications, or found it compatible with their objectives.
- * 31 respondents opposed the establishment of a refuge.
- * 42 respondents only discussed specific issues and did not select an alternative.

PETITIONS: 319 individuals signed petitions advocating peat mining and opposing the refuge.

MAJOR ISSUES:

- | | |
|------------------|--|
| 1. Peat Mining | - 45 respondents were in favor of peat mining.
- 15 respondents were opposed to peat mining. |
| 2. Local Economy | - 25 respondents. |
| 3. Wildfire | - 16 respondents. |
| 4. Tax Base | - 12 respondents. |
| 5. Permits | - the Environmental Protection Agency states that based on its current understanding of the proposal, it would not grant a permit to convert pocosin habitat to "flat water impoundment" {seasonally flooded shallow marshes for waterfowl and wading birds (see Section IV B)}. |
| 6. Bird Strikes | - Air Force opposes any new waterfowl impoundments near the approach to the bombing range. |

MAJOR GROUPS WHICH FAVOR A REFUGE AS PROPOSED, IN CONCEPT, OR WITH QUALIFICATIONS OR WHICH FOUND IT COMPATIBLE WITH THEIR OBJECTIVES:

Tyrrell County Board of Commissioners
Washington County Board of Commissioners
Town of Columbia
Town of Roper
Town of Creswell
Conservation Council of North Carolina
North Carolina Coastal Federation
North Carolina Natural Heritage Program
North Carolina Sierra Club
Environmental Defense Fund
Southern Environmental Law Center
Washington County Chamber of Commerce
North Carolina Fisheries Association
North Carolina Division of Parks and Recreation
North Carolina Department of Cultural Resources
Pamlico Tar River Foundation
North Carolina Division of Environmental Management, Water Quality Section

MAJOR GROUP OPPOSED TO A REFUGE:

Hyde County Board of Commissioners